B1 amplify the whole fusion genes and to reveal only genes implicated in the rearrangement.

Page 4, between lines 11 and 12, insert the following:

B2 --**BRIEF DESCRIPTION OF THE DRAWINGS**

Figs. 1A, 1B and 1C illustrate the detection protocol of a gene rearrangement with known fusion partners, as described in Example 1.—

Pages 5 and 6, delete the paragraph bridging pages 5 and 6 and insert the following therefor:

B3 -- PCR products carry a marker (digoxigenine, biotin or fluorophore for example) by which they will be detected. Such marker is carried by a deoxynucleotide embodied into the PCR products during the second amplification.—

Page 7, delete the paragraph beginning at line 3 and insert the following therefor:

B4 -- A detection alternative, to highlight numerous genes rearrangements on a large number of genes, in a single test, is based on the DNA chips technology and comprises using oligonucleotidic or cDNA probes secured to a miniaturized support. Each probe or hybridization unit may advantageously be individually controlled by an electric field. In another alternative, the internal probes are advantageously immobilized on strips.--

Page 7, delete the paragraph beginning at line 17 and insert the following therefor:

B5 --The internal probes are advantageously immobilized on strips.—

Pages 8 and 9, delete the paragraph bridging pages 8 and 9 and insert the following therefor:

-- According to an advantageous embodiment of the invention, implemented to detect translocations involving the MLL gene, a cDNA pool is synthesized from the RNA extracted from the sample under investigation with the aid of primers including a cassette of about 30 to 35 nucleotides, complemented by a sequence of 6 or 9 random nucleotide patterns, and an anchored PCR is performed using a primer located on the MLL' exon 5, as specific sense primer. Where a second amplification cycle is performed, an internal sense primer is used to increase the specificity. The random primer is advantageously selected as complementary to the oligonucleotides cassette used on the reverse transcription step.--

Page 13, delete the paragraph beginning on line 15 and insert the following therefor:

--(1) The cDNAs are synthesized from the total RNAs in the sample studied, by reverse transcription (RT), then (2) the cDNA pool is amplified by PCR and (3) the transcripts are checked for specificity.--

Page 16, delete the paragraph beginning at line 1 and insert the following therefor:

-- A second amplification cycle is completed to assess long fragments, using 1 µl of product obtained from the first PCR. An internal sense primer with respect to the first cycle primer is used with an identical antisens primer; to perform the ELISA detection,

B8 the dTTP is replaced by a dTTP + DIG-dUTP^{R} mixture (Boehringer; 1558 706) to the 1 :19 ratio.--

Page 21, delete the paragraph beginning on line 20 and insert the following therefor:

B9 -- Amplification is obtained as described in the example 1 using the following sense primers:--.

IN THE ABSTRACT

Add the attached Abstract, after the claims pages.

IN THE CLAIMS

Cancel claims 1-15, without prejudice.

Add the following claims:

B10 --16. (new) A method of diagnosing a pathology associated with rearrangements of target genes, wherein a patient's DNA or cDNA is subjected to a step of anchored PCR, *in vitro*, comprising

a) amplifying the DNA or cDNA by one or more asymmetrical PCR, with a single pair of primers for each target gene, one of the primers being complementary to the nucleotide sequence of the target gene, the other primer being a complementary random primer, wherein all the gene rearrangements of the target genes are amplified,

b) obtaining PCR products,

c) detecting only the PCR products with rearranged genes with probes specific for either the target gene or any part of the genome adjacent to the target gene,